

REMARKS

Claims 1-12 and 19 are currently pending in this application.

Support for the new claims is found, by way of example, in the passages identified below.

Claim 20 is supported by page 6, lines 1-3.

Claim 21 is supported by page 6, lines 15-21.

Claim 22 is supported by page 6, lines 30 to page 7 line 1; and page 10 lines 5-10.

Claim 23 is supported by page 6, lines 16-21.

Claim 24 is supported by page 7, lines 3-4.

Claims 25 is supported by page 10, lines 3-5.

Claims 26 and 27 are supported by page 12, lines 25-29.

Claim 28 is supported by page 23, lines 19-23.

Claim 29 is supported by page 6, lines 27-29.

Claim 30 is supported by page 6, lines 22-27.

Claim 31 is supported by page 23, lines 13-18.

Claim 32 is supported by page 24, lines 14-29.

Claim Rejections – 35 USC § 103

The Examiner rejected the claims as unpatentable over Klaui et al. (U.S. patent no. 3,920,834) in view of Gerwick et al. (U.S. patent no. 5,508,026).

The Examiner alleged that Kalui et al. discloses light screening compositions comprising carotenoids and amino acids. The Examiner alleged that Gerwick et al. discloses indole-alkaloids useful as UV protective agents, and, in particular, the polyphenolic compound, scytonemin.

The Applicants emphasize that Gerwick et al. *teaches away* from the claimed invention. Gerwick et al. teaches obtaining scytonemin from particular bacterial extracts. However, Gerwick et al. considers carotenoids and chlorophyll derivatives in the extracts to be contaminants. It is stated in column 4, lines 50-52 that, "Carotenoids and chlorophyll derivatives contaminating this preparation could be removed by washing the filter with petroleum ether and methanol-water (1:4)." Thus, Gerwick et al. discloses sunscreen compositions including scytonemin, with the deliberate exclusion of carotenoids and chlorophyll. Since Gerwick et al.

not only excludes these compounds, but describes carotenoids as "contaminants", one of skill in the art would consider this reference to teach away from the invention. There would be no motivation to combine Kalui et al. with Gerwick et al. since the former patent teaches light screening compositions including carotenoids, and the latter patent teaches UV protective scytonemin compositions that deliberately exclude carotenoids as contaminants. One of skill in the art reviewing Gerwick et al. and Kalui et al. would not consider the references to in any way teach or suggest the claimed invention. There is no motivation to combine the teachings of these patents to make a composition including a carotenoid and a polyphenolic compound and no reasonable expectation of success in producing a sunscreen composition. Therefore, the Applicants submit that the burden to establish a *prima facie* case of obviousness has not been met.

Claim 9 refers to a sunscreen composition comprising a heteroautotrophic cell extract or a photoautotrophic cell extract. Gerwick et al. teaches the use of purified compounds rather than extracts. In column 1, lines 19-23, the Gerwick et al. invention is described as relating to a "newly isolated indole alkaloid compound". The focus is on a compound, not extracts. The "Summary of the Invention" at column 1, lines 59-67, states, "...it was discovered that one of the compounds present in scytonemin pigment is an indole alkaloid which not only is a strong UV absorber, but also exhibits strong activity as an anti-inflammation agent. The purified indole alkaloid, along with synthetically derived analogs, may be used alone or in combination with a pharmaceutically acceptable carrier...". Again, the focus is on the particular compound of interest. The above quote also teaches selecting the compound of interest from other compounds present in scytonemin, which would include selecting it from all other light absorbing compounds. At column 4, lines 53-58, "essentially pure" compound is described. Thus, Gerwick et al. teaches away not only from using extracts or other light absorbing compounds, but also teaches away from using any other compounds except a pharmaceutically acceptable carrier in the sunscreen composition. The other cited patent, Klaui et al., does not disclose or suggest either obtaining sunscreen compounds from extracts or using the extracts in a sunscreen composition. In column 3, Examples 1 and 2 refer to preparation of capsules manufactured in a conventional manner by combining pre-measured amounts of individual chemicals. For these

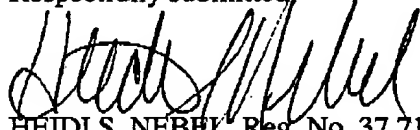
additional reasons, the Applicants further submit that the burden to establish a *prima facie* case of obviousness Claim 9 has not been met.

Claim 12 refers to a method of topical application of sunscreen composition to protect human hair, human skin or another surface. Klaui et al. discloses oral compositions (see, for example, the Abstract and column 1, lines 34-39). Therefore, Klaui et al. also teaches away from the subject matter of claim 12. For these additional reasons, the Applicants further submit that the burden to establish a *prima facie* case of obviousness Claim 12 has not been met.

This is a request under the provision of 37 CFR § 1.136(a) to extend the period for filing a response in the above-identified application for one month from December 23, 2003 to February 23, 2004. Applicant is a small entity; therefore, please charge Deposit Account number 26-0084 in the amount of \$210.00 for two months to cover the cost of the extension. Any deficiency or overpayment should be charged or credited to Deposit Account 26-0084.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,



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